ESOTERIC

# P-01

SACD/CD Drive Unit

Owner's Manual

SUPER AUDIO CD

COMPACT disc DIGITAL AUDIO

**CAUTION**
**RISK OF ELECTRIC SHOCK DO NOT OPEN**

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

# IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.
12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- Do not expose this apparatus to dripps or splashes.
- Do not place any objects filled with liquids, such as vases, on the apparatus.
- Do not install this apparatus in a confined space such as a book case or similar unit.
- The apparatus draws nominal non-operating power from the AC outlet with its POWER switch in the off position.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

**CAUTION**

- DO NOT REMOVE THE EXTERNAL CASES OR CABINETS TO EXPOSE THE ELECTRONICS. NO USER SERVICEABLE PARTS ARE WITHIN!
- IF YOU ARE EXPERIENCING PROBLEMS WITH THIS PRODUCT, CONTACT TEAC FOR A SERVICE REFERRAL. DO NOT USE THE PRODUCT UNTIL IT HAS BEEN REPAIRED.
- USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

## For U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

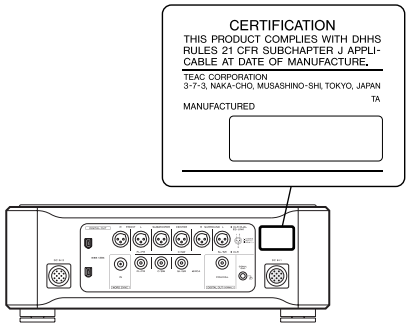
- Reorient or relocate the equipment and/or the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**CAUTION**

Changes or modifications to this equipments not expressly approved by TEAC CORPORATION for compliance will void the user's warranty.

This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968", and is classified as class 1 laser product. There is not hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings.
The label required in this regulation is shown ①.

① For U.S.A.


CERTIFICATION
THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J APPLICABLE AT DATE OF MANUFACTURE.
TEAC CORPORATION
3-7-3, NAKA-CHO, MUSASHINO-SHI, TOKYO, JAPAN
TA
MANUFACTURED

**Optical pickup :**

| | |
|---|---|
| Type | : GH20707A2A |
| Manufacturer | : SHARP CORPORATION |
| Laser output | : Less than 1mW on the objective lens |
| Wavelength | : 788±5 nm (CD) |

VARING: APPARATEN INNEHÅLLER LASER KOMPONENT MED STRÅLNING ÖVERSTIGANDE KLASS 1.

"ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING"

"VAROITUS! SUOJAKOTELOA EI SAA AVATA. LAITE SISÄLTÄÄ LASERDIODIN. JOKA LÄHETTÄ (NÄKYMÄTÖNTÄ) SILMILLE VAARALLISTA LASERSÄTEILYÄ".

ADVARSEL: USYNLIG LASERBESTRÅLING NÅR DENNE DELEN ER ÅPEN OG SIKKERHETSSPERREN ER UTKOBLET UNNGÅ UTSETTELSE FOR STRÅLING.

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# Features

**Newest Generation VRDS mechanism for SACD (employing a magnesium turntable and SS400 bridge)**

The VRDS mechanism securely clamps the disc to the turntable, the diameter of which is exactly the same as that of the disc. This system completely eliminates vibration inherent to removable media and unwanted vibrations generated by the mechanical systems. Also, this mechanism clamps the discs at a slight inclination so as to compensate for warping or deformation improving the accuracy of the optical axes of both the laser pick-up and the pit surface of the disc. This is effective in reducing the errors in reading the disc data as well as in preventing timing errors from erratic data acquisition timing.

The P-01 utilizes a magnesium turntable. Magnesium, with a specific gravity two-thirds that of aluminum, is lightweight and has excellent vibration absorption properties that help achieve high-speed rotation with extraordinary stability which are required by an SACD player. What's more, a pair of highly precise ball bearings is used in the spindle shaft bearing unit and 20-mm thick SS400 steel is used for the support bridge that is directly joined to a 10-mm thick iron frame structure.

**Coreless motor using neodymium magnets**

ESOTERIC has developed a new, long-life three-phase brushless spindle motor for high-speed rotation of the large diameter turntable. In cooperation with the turntable firmly held in place with high-precision ball bearings, this motor minimizes rotation irregularities and vibrations.

Completed through scientific validations including magnetic field analysis, the optimized magnetic circuit reduces fluctuations in the motor drive current, thereby lessening any effects on audio circuits.

**Pickup structure designed to prevent tilting of the laser optical axis and speed feedback-controlled sled transport**

The pickup used in the P-01 has a highly rigid sliding-shaft structure that prevents the lens from tilting and the laser optical axis is kept precisely aligned with the media's bit track. In the sled moving mechanism a proprietary Hall element sensing-type three-phase brushless motor is used and powerful electronic speed feedback circuits control this sled mechanism for quick access, thereby ensuring smooth, continuous lens movement with superior response.

**Highly rigid chassis to completely eliminate internal and external vibrations that might deteriorate sound quality**

The chassis that supports the mechanisms includes steel bottom frame of 10-mm thickness and 4.52-kg (10 lbs) of weight. Thick aluminum is used on the top, side, bottom and front panels. The entire chassis is supported by Esoteric-exclusive pinpoint feet (patent pending) made of case-hardened tool steel.

Total attention is given to precision in mounting mechanical parts, the rigidity of the housing, and eliminating sympathetic vibration. The front and side panels constructed of thick brushed aluminum, and the rounded four corners, also of aluminum, create a feeling of dignity and gravitas, befitting of a superior SACD/CD drive unit.

**Power supply section completely separated from main body**

To exploit the transport potential to the full, the power supply unit is separated from the P-01 itself. The - power supply unit is equipped with three transformers: one for driving the mechanisms and motors, one for handling control signals so that the pick-up reads disc data with superior accuracy, and one for handling digital signals in the clock circuit and other areas. WB transformers, remarkable for small current loss and quick response, are used for driving the mechanism motors and for handling digital signals.

**Upward conversion on CD playback**

The digital audio is sent through a high-precision crystal oscillator that generates ±3ppm of accuracy (temperature characteristics included) and DSRLL III circuit to minimize jitter and do upward conversion.

The upward conversion feature makes it possible to output a maximum 192kHz signal when playing back CDs. When playing back SACD discs, the DSD signal (1 bit, 64 Fs) is sent out as acquired without upconverion or other processing.

**Digital audio output**

The output stage includes one multi-function XLR system (six terminals: L, R, C, SW, LS, and RS are available for ES-LINK output; two terminals: L and R for Dual AES output; and L/R terminals for XLR output), one RCA system (L/R terminals), and two IEEE 1394 systems. As an output having no upward conversion function, one RCA (NORMAL) system is provided.

No SACD data is available at the RCA jack.

**Esoteric-exclusive format, ES-LINK, making SACD digital output possible**

The SACD digital output is sent out of the XLR terminals in the Esoteric-exclusive ES-LINK format, or out of the IEEE 1394 interface.

When "XLR DUAL" is selected as output and an SACD disc is played , the output is automatically sent in the ES-LINK format. Only the Esoteric mono D/A converter, the D-01, is ready for ES-LINK at this time.

**WORD SYNC**

The word sync feature allows this unit to synchronize with an external word clock. The input frequency is switch-selectable between 44.1, 88.2, 176.4, 48, 96, 192, and 100 kHz. The P-01 is designed so that the phase shift between the word clock and output sampling frequency is kept within 10 degrees when there is no discrepancy between the two. This unit can be either in "IN" mode or in "Rb IN" mode. When in Rb IN mode, a PLL circuit devoted to a highly precise clock like the rubidium controlled oscillator used in the ESOTERIC G-0s is activated.

**Copper wires of 6N purity are used for primary internal wirings, Further contributing to superior sound quality**

High purity 6N copper wires are used for the supplied AC power cord and most internal wiring that has effect on the sound quality thereby improving the purity and texture resolution of the sound.

The insulating sheath is made of polyorefin, a non-PVC material, used out of consideration for the environment as well as sound quality. No PVC is used for any other wire insulation. The high purity 6N copper cable is developed with the help of Acro Japan Ltd. who also developed the highly acclaimed Esoteric "MEXCEL" interconnection cable and high purity 8N copper cable.

## What's in the box

Please confirm that the following accessories are in the box when you open it.

Power cord x 1
DC power cable x 2
Screwdriver x 1
Remote control unit x 1
Batteries (AA, R6 or SUM-3) x 2
Felt pad x 8
Owner's manual x 1
Warranty card x 1

## Conventions about This Manual

- The types of functions and operations that can be used for a particular disc vary depending on the features built into that disc. In some cases, these functions and operations may differ from the descriptions given in this Owner's Manual.
- The drawings about the front panel display used in this Owner's Manual are purely for the purposes of explanation. The actual displays may differ slightly from what are shown here.

## Read this before operation

- As the unit may become warm during operation, always leave sufficient space around the unit for ventilation.
- The voltage supplied to the unit should match the voltage as printed on the rear panel. If you are in any doubt regarding this matter, consult an electrician.
- Choose the installation location of your unit carefully. Avoid placing it in direct sunlight or close to a source of heat. Also avoid locations subject to vibrations and excessive dust, heat, cold or moisture.
- Do not place the unit on the amplifier/receiver.
- Do not open the cabinet as this might result in damage to the circuitry or electrical shock. If a foreign object should get into the unit, contact your dealer or service company.
- When removing the power plug from the wall outlet, always pull directly on the plug, never yank the cord.
- To keep the laser pickup clean, do not touch it, and always close the disc tray.
- Do not attempt to clean the unit with chemical solvents as this might damage the finish. Use a clean, dry cloth.
- Keep this manual in a safe place for future reference.

**DO NOT MOVE THE UNIT DURING PLAYBACK**

During playback, the disc rotates at high speed. Do NOT lift or move the unit during playback. Doing so may damage the disc or the unit.

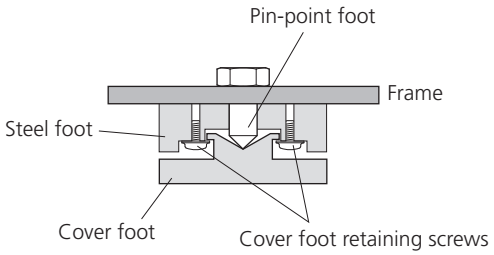
**WHEN MOVING THIS UNIT**

When changing places of installation or packing the unit for moving, be sure to remove the disc and return the disc tray to its closed position in the player. Then, press the power switch to turn the power off, and disconnect the power cord. Moving this unit with the disc loaded may result in damage to this unit.

## Placement of the unit

High-quality hardened tool steel is used for the pin-point feet attached to the bottom of the player. Although the outer feet may appear loose, the weight of the unit causes them to become firm and secure. The design effectively damps and reduces vibration.

- WARNING: Be careful to avoid injury when moving the unit. This unit weighs over 60 pounds! Seek assistance when moving or placing this product.
- To protect the supporting furniture surface, you may stick the felt pads supplied with the unit to the bottom of the metal feet.




## Beware of condensation

When the unit (or a disc) is moved from a cold to a warm place, or used after a sudden temperature change, there is a danger of condensation; vapor in the air could condense on the internal mechanism, making correct operation impossible. To prevent this, or if this occurs, leave the unit for one or two hours with the power turned on. Then the unit will stabilize at the temperature of its surroundings.

## Maintenance

If the surface of the unit gets dirty, wipe with a soft cloth or use diluted neutral cleaning liquid. Be sure to remove any fluid completely. Do not use thinner, benzine or alcohol as they may damage the surface of the unit.

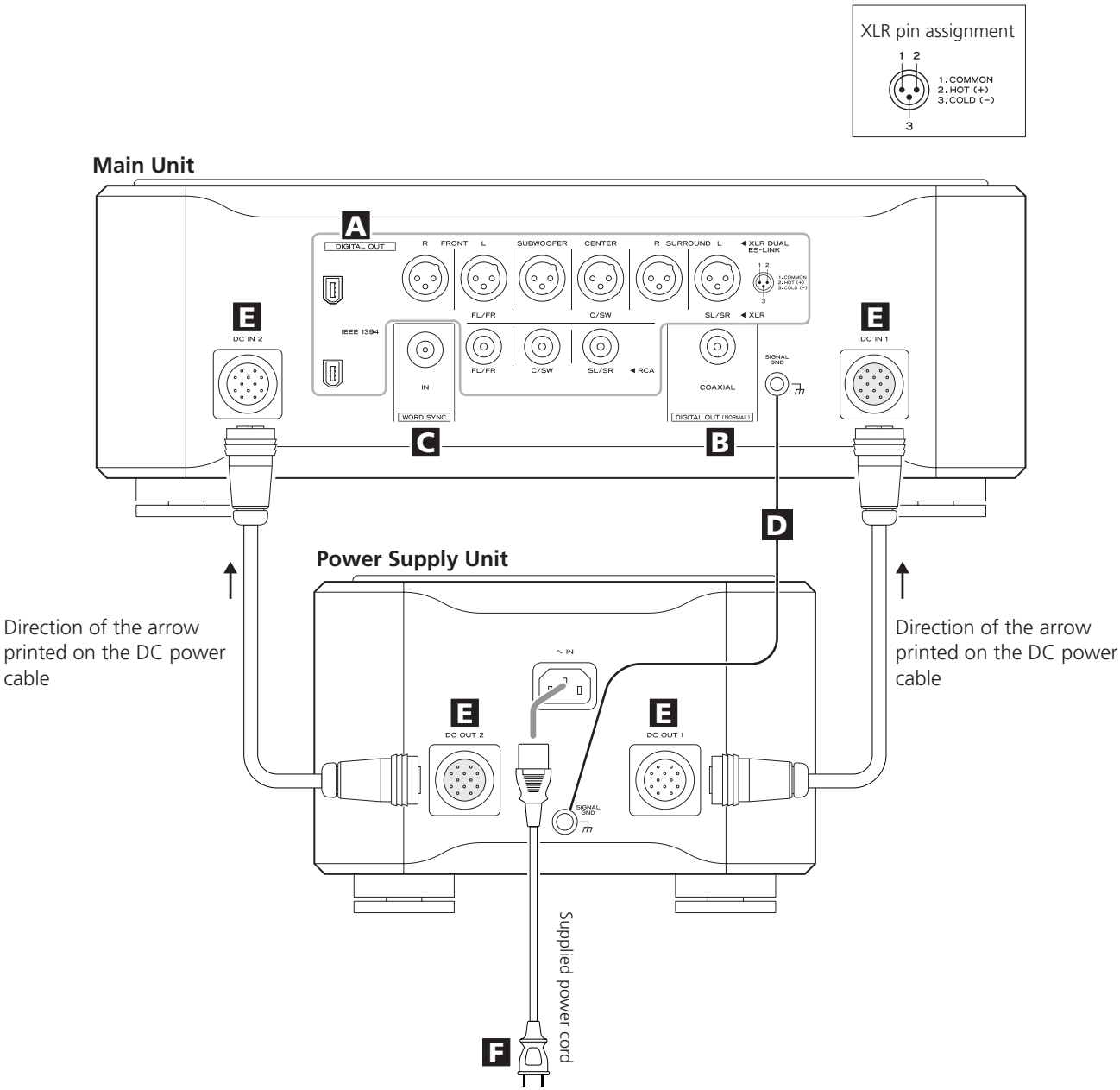
**CAUTION**
The product should not be exposed to dripping or splashing and that no object filled with liquids, such as vases, shall be placed on the product.

Do not install this equipment in a confined space such as a book case or similar unit.

# Connections

**CAUTION:**

- Switch off the power to all equipment before making connections.
- Read the instructions of each component you intend to use with this unit.
- Be sure to insert each plug securely. To prevent hum and noise, avoid bundling the signal interconnection cables together with the AC power cord or speaker cables.



## A Digital audio output terminals

Digital audio is output from these terminals.
Connect these terminals to the digital input terminals of D/A converters (D-01) using commercially available cables.

XLR: Use balanced XLR digital audio cable
COAXIAL: Use RCA (pin) digital audio cable
IEEE1394 / i.LINK (AUDIO):
Use S400 compatible IEEE1394 6pin cable

**To output digital surround sound from SACD discs, the ES-LINK compatible D/A converter, or an IEEE1394 (i.LINK S400 (AUDIO)) compatible D/A converter is necessary.**

**See pages 8-11 for details on the connection to the Esoteric D-01 or TEAC D-70.**

If your D/A converter doesn't have an IEEE1394 terminal nor ES-LINK terminal, connect P-01's FL/FR terminal (XLR or RCA) to the digital input terminal of the D/A converter. In this case, the P-01 cannot output digital sound from SACD.

- The IEEE 1394 terminal is an interface capable of bi-directional data transmission with a connected device. You don't need to be concerned with distinguishing between input and output.
- No digital output is available at the RCA C/SW and LS/RS terminals at this time. If no ES-LINK-capable device is connected, no digital output is available at the XLR C/SW and LS/RS terminals, either. When updated in the future, this unit will have the capability of outputting multi-channel digital audio coming from DVD-Audio sources.

## B Digital audio output terminals (NORMAL)

Conventional digital audio from CD is output from this terminal. Connect this terminal to the digital input terminal of a digital device using a commercially available RCA digital audio cable.

- When you are using this terminal, select ON in the "D-OUT Norm" setting (see page 28).
- This terminal cannot output digital sound from SACD discs.
- This terminal cannot output up-converted signals.

## C Word sync input terminal

This allows the use of an externally generated word clock connection, using a commercially available BNC coaxial cable (75Ω).
Devices producing such a suitable clock signal include external D-A converters, or dedicated word clock generators. Connect the WORD SYNC OUT of such a device to the unit.

## D SIGNAL GND connection

Use a commercially available PVC-covered cord to connect the signal ground terminal on the unit to the amplifier signal ground.

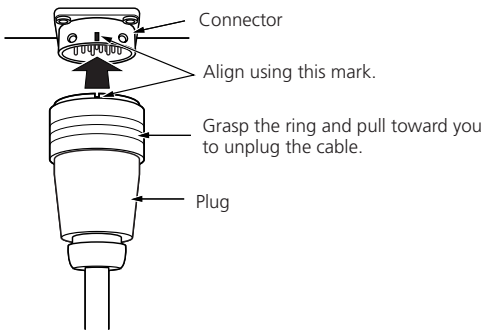
- Note that this is NOT an electrical safety ground (earth).

## E DC IN/OUT connector

Connect the DC OUT connectors of the power supply unit to the DC IN connectors of the main unit using the supplied DC power cables.

DC OUT 1 → DC IN 1
DC OUT 2 → DC IN 2

- The DC power cables carry arrow marks on them. Connect them so that the arrows point as shown on the opposite page. Making sure of the position of the cut-out in the end of the plug and the direction of the arrow on the DC power cable, hold the body of the plug, align the cut-out with the guide mark on the connector and inset the plug until it clicks in and locks in place. When unplugging the cable, firmly grasp the barrel or locking ring around the end of the plug and pull directly toward you. Do not push or pull the plug at an angle when plugging or unplugging the cable.
- Always switch off the power before plugging or unplugging the DC power cable.
- Be careful not to get your fingers pinched between the end of the plug and the connector.

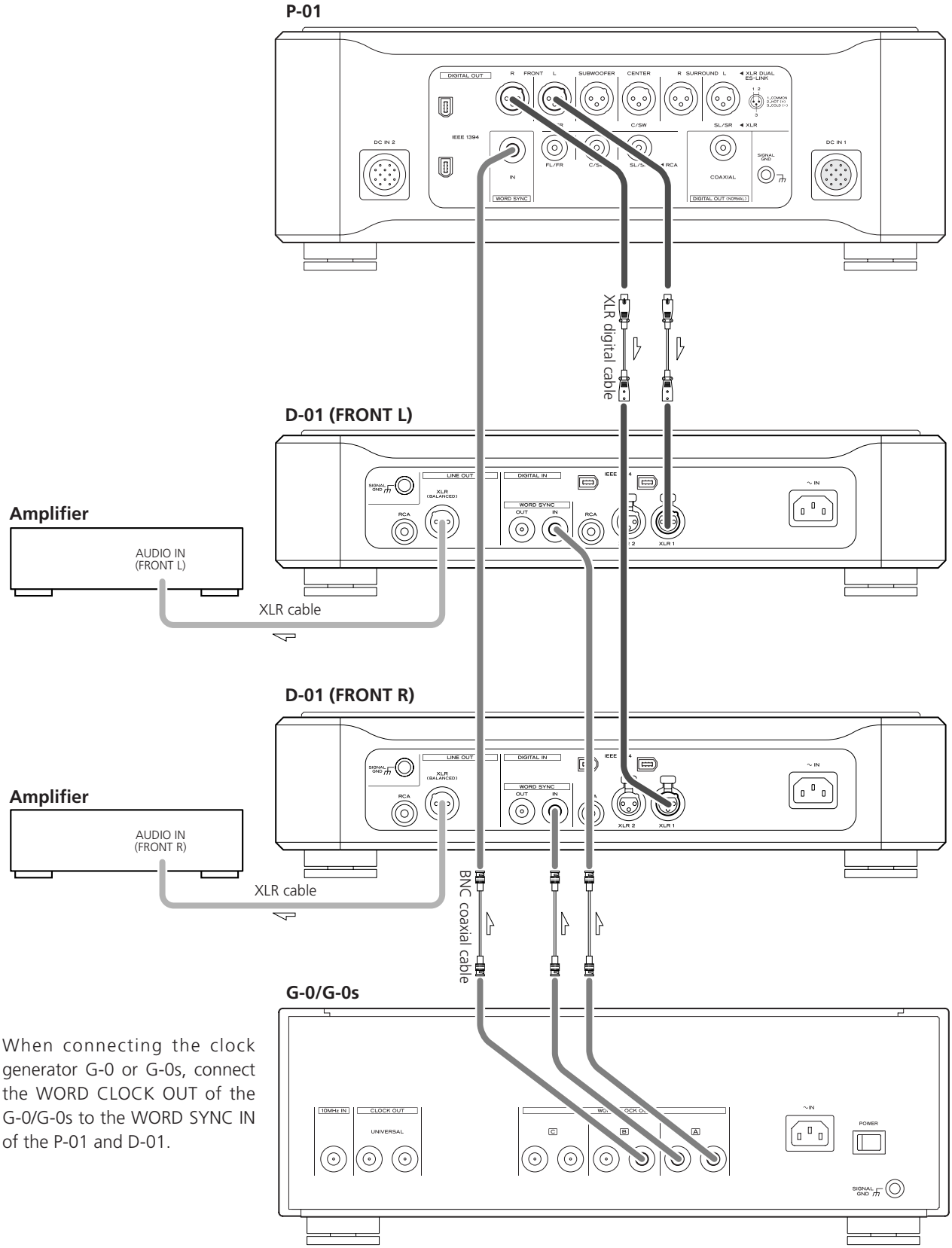



## F Power cord receptacle

After all other connections have been made, insert the supplied AC power cord into this receptacle, then connect the other end of the power cord into the AC power source. Ensure that your AC voltage corresponds to the voltage marked on the rear panel of the unit. Consult a qualified electrician if you are in doubt.

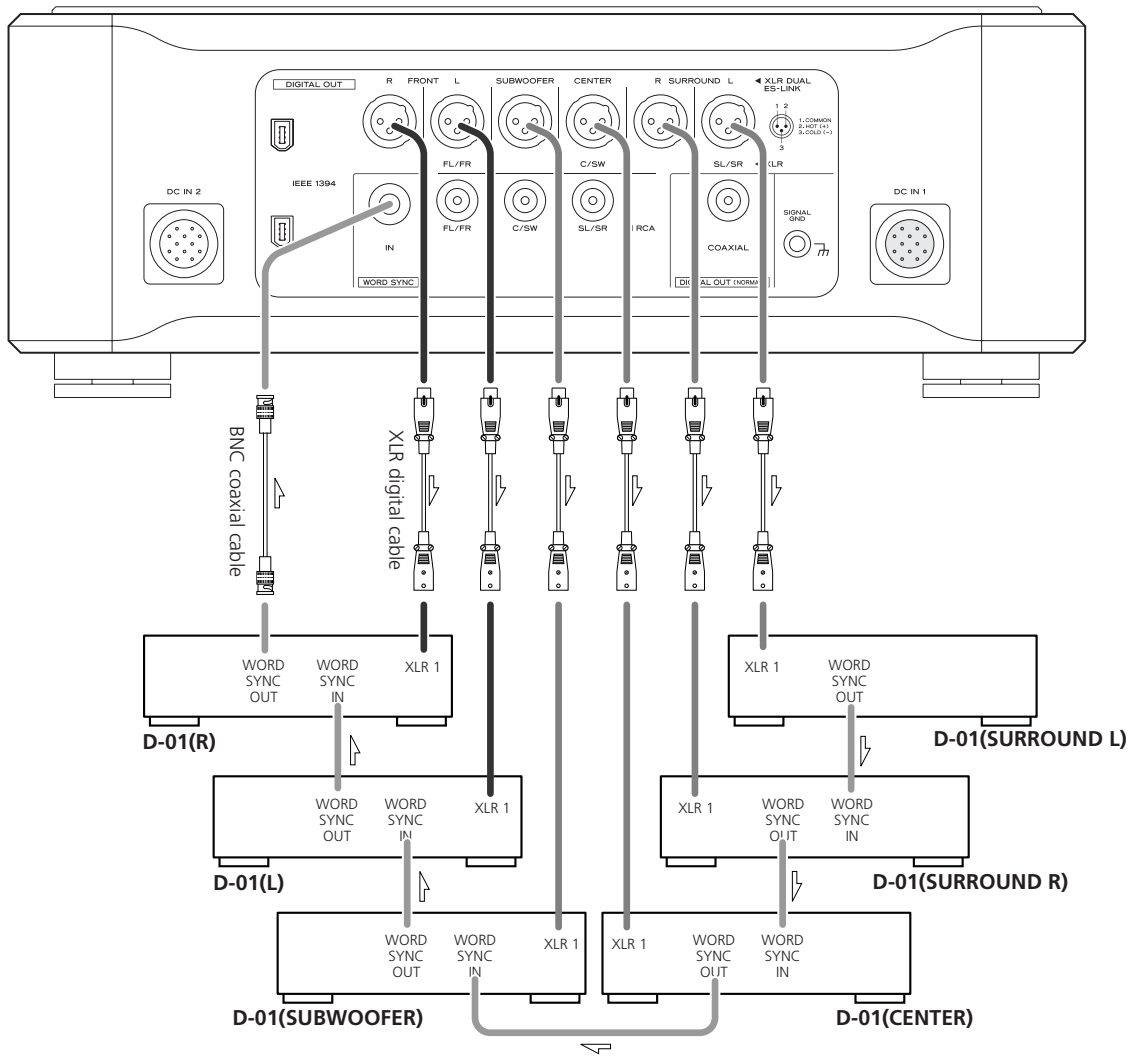
- In order to avoid the risk of electric shock, fire, or other hazard, only use the supplied power cord or a suitably approved OEM power cord.
- If you are not going to use the unit for some time, disconnect the power cord from the wall socket.

## Connection to the G-0/G-0s and two D-01 converters




When connecting the clock generator G-0 or G-0s, connect the WORD CLOCK OUT of the G-0/G-0s to the WORD SYNC IN of the P-01 and D-01.

## Connection to 6 sets of D-01




When connecting to two D-01 units, connect the XLR terminals (FRONT L and FRONT R) of the P-01 to the XLR terminal (1 or 2) of each D-01.

When you are using six D-01 units for multi-channel listening, connect their XLR outputs in a similar way.

If the clock generator G-0/G-0s isn't available, connect the word sync terminals as shown above (in random order).

When connecting the G-0 or G-0s with a P-01 and six D-01 units, connect the WORD CLOCK OUT of the G-0/G-0s to the WORD SYNC IN of each D-01 and connect the UNIVERSAL CLOCK OUT of the G-0/G-0s to the WORD SYNC IN of the P-01.

**Setting of the P-01**

| | |
|---|---|
| OUTPUT button | "XLR DUAL" |
| WORD button | "IN" (When the G-0s is connected, "Rb IN") |
| UP CONVERT button | "176.4/192" |

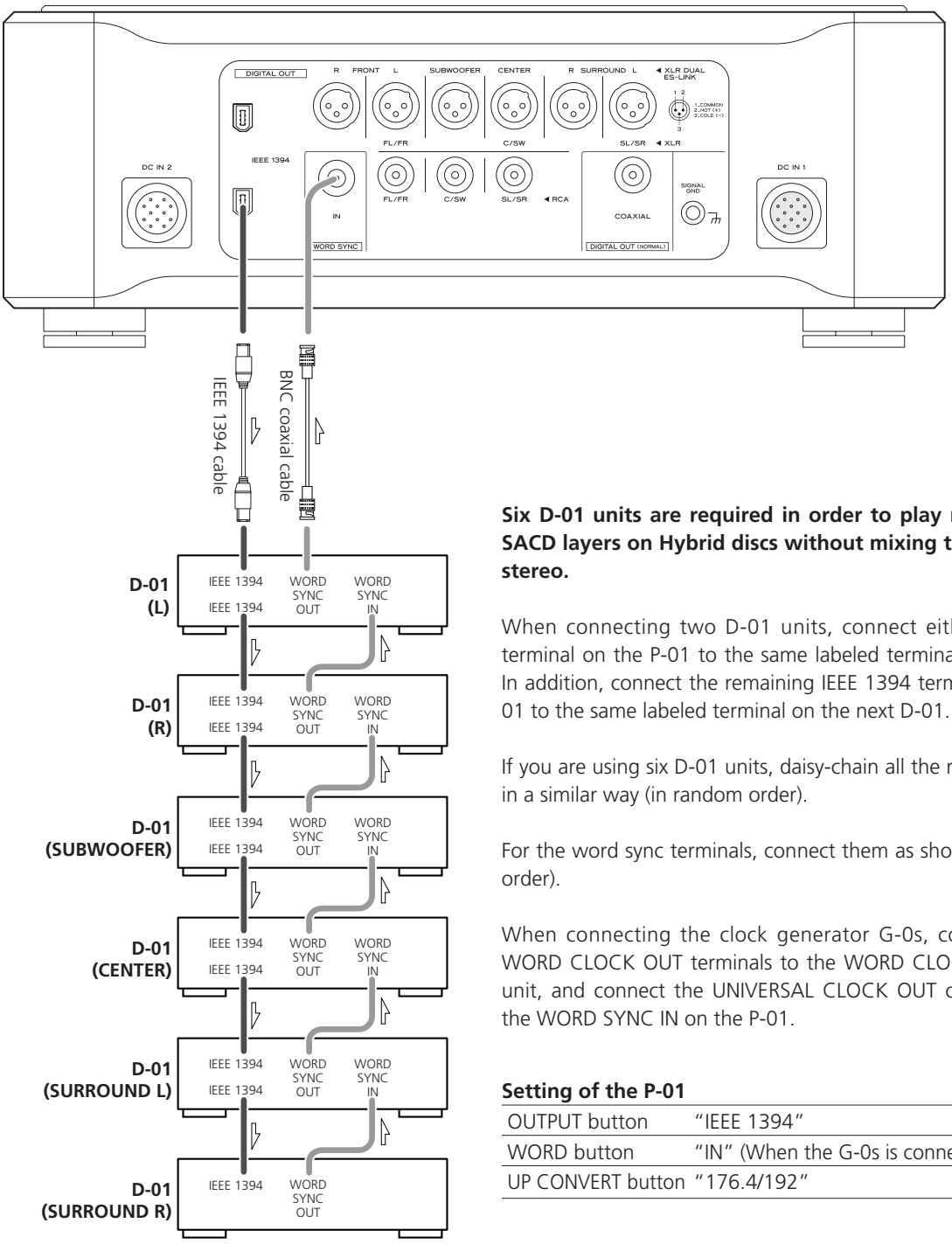
**Setting of the D-01**

| | |
|---|---|
| INPUT button | "XLR 1" or "XLR 2" |
| WORD button | One of the D-01 that outputs word synchronization signals: "OUT"<br>The others: "IN"<br>When the G-0 is connected, set all the D-01s to "IN".<br>When the G-0s is connected, set all the D-01s to "Rb IN". |
| W_OUT setting | "176.4" |
| CH_SEL setting | respective channels |

**Setting of the G-0/G-0s**

| | |
|---|---|
| Frequency change button (A, B or C) | 176.4kHz |
| FREQUENCY MODE button | 44.1kHz |

# Connection to the D-01 (IEEE1394)




**Six D-01 units are required in order to play multi-channel SACD layers on Hybrid discs without mixing them down to stereo.**

When connecting two D-01 units, connect either IEEE 1394 terminal on the P-01 to the same labeled terminal on the D-01. In addition, connect the remaining IEEE 1394 terminal on the D-01 to the same labeled terminal on the next D-01.

If you are using six D-01 units, daisy-chain all the remaining units in a similar way (in random order).

For the word sync terminals, connect them as shown (in random order).

When connecting the clock generator G-0s, connect the six WORD CLOCK OUT terminals to the WORD CLOCK IN on each unit, and connect the UNIVERSAL CLOCK OUT on the G-0s to the WORD SYNC IN on the P-01.

**Setting of the P-01**

| | |
|---|---|
| OUTPUT button | "IEEE 1394" |
| WORD button | "IN" (When the G-0s is connected, "Rb IN") |
| UP CONVERT button | "176.4/192" |

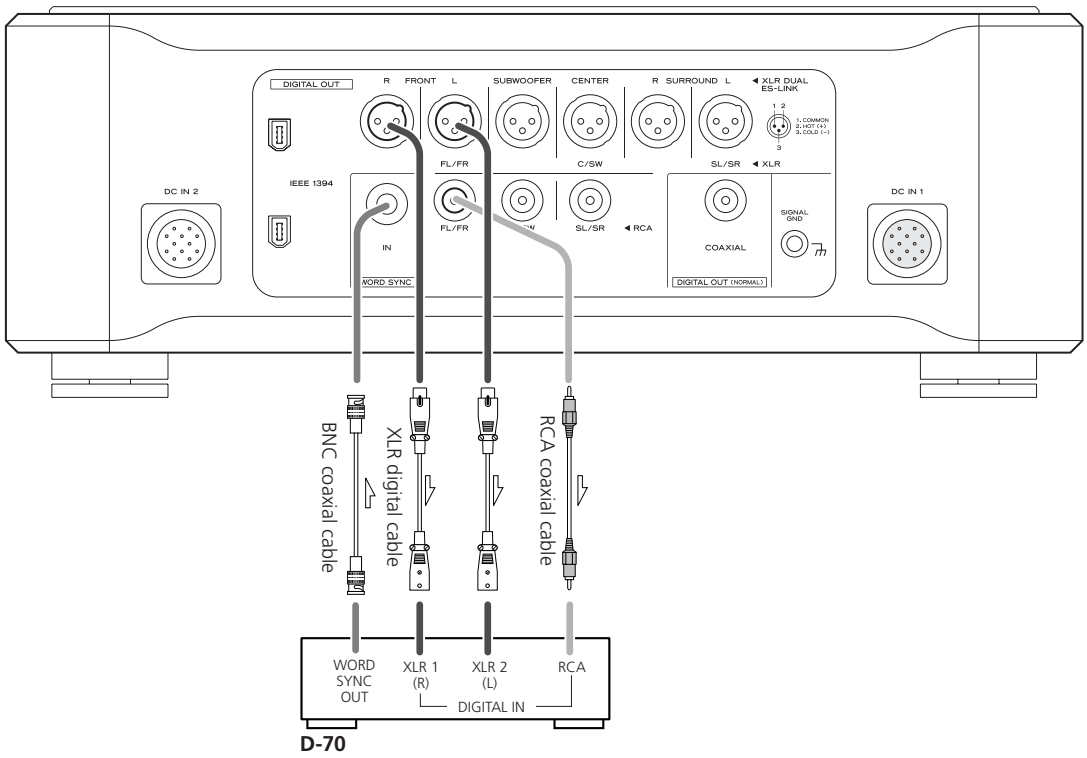
**Setting of the D-01**

| | |
|---|---|
| INPUT button | "IEEE 1394" |
| WORD button | One of the D-01 that outputs word synchronization signals: "OUT"<br>The others: "IN"<br>When the G-0s is connected, set all the D-01 to "Rb IN". |
| W_OUT setting | "176.4" |
| CH_SEL setting | respective channels |

**Setting of the G-0s**

| | |
|---|---|
| Frequency change button (A, B or C) | 176.4kHz |
| FREQUENCY MODE button | 44.1kHz |

# Connection to the D-70




When connecting a single D-70, connect the XLR outputs (FRONT L and FRONT R) on the P-01 to the digital inputs (XLR 1 and XLR 2) on the D-70.
If you don't have XLR digital cables, you may use an RCA coaxial cable to make the connection between the FL/FR output on the P-01 and the digital inputs (RCA) on the D-70.

You also need to connect the WORD SYNC OUT on the D-70 to the WORD SYNC IN on the P-01.

**Setting of the P-01**

| | |
|---|---|
| OUTPUT button | "XLR DUAL" |
| WORD button | "IN" (When the G-0s is connected, "Rb IN") |
| UP CONVERT button | "176.4/192" |

**Setting of the D-70**

| | |
|---|---|
| INPUT SELECTOR | "XLR" |
| AES3 INPUT | "DUAL" |
| Word sync setting | "88.2" |

The i.LINK is also known as IEEE 1394, an international specification.
This unit is already configured for i.LINK (AUDIO).
By connecting an i.LINK (AUDIO)-capable device to the IEEE 1394 (or i.LINK (AUDIO)) terminal on this unit using an i.LINK cable, you can transmit SACD multi-channel digital signals that could not be transmitted in the past. Previously only the analog signal could be transmitted. With the i.LINK format, the P-01 can transmit in native DSD as well as transmitting 2-ch linear PCM data and multi-channel compressed audio signals.
If you have multiple i.LINK-capable devices, you can connect them through other devices to transmit data between them, so you don't need to be concerned with the order of connection.

## Copyright protection system DTCP

To play back audio sounds recorded on SACD or DVD discs using i.LINK, both the player and the D/A converter need to be ready for the copyright protection system DTCP (Digital Transmission Content Protection).
This unit is already configured for DTCP.

## Data transfer rate

There are three transfer rates: 100 Mbps (S100), 200 Mbps (S200), and 400 Mbps (S400). This unit is capable of transferring data at a maximum 400Mbps.

For connection to an i.LINK-capable device, use a commercially available S400-compliant 6-pin i.LINK cable.

When connecting multiple i.LINK-capable devices, avoid connecting a device having slow transfer rate between devices having high transfer rates since this reduces the transfer rate of your whole system. Connect devices having high transfer rate towards the source as far upstream as possible.

**NOTES**

- Among the i.LINK formats there are "MPEG-2 TS" for SAT digital source and "DV" for digital video for DVD recorders, as well as the "i.LINK (AUDIO)" (A&M Protocol). Never connect devices that are not ready for i.LINK (AUDIO) to this unit. If you do, this unit and others may operate out of order or possibly be damaged.

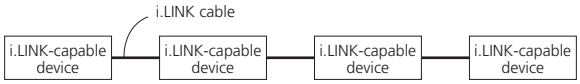
- In the process of data transfer, avoid plugging/unplugging the i.LINK cables while in use or switch the power off before making or breaking connections.
- Among the i.LINK-capable devices there are some that, if not turned on, are not capable of relaying data.

- Chances are some i.LINK-capable devices will not respond to this unit's command.

## How to connect multiple i.LINK-capable devices

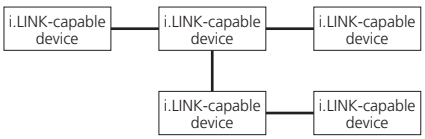
**Daisy chain connection**

You can daisy-chain up to 17 devices including this unit.

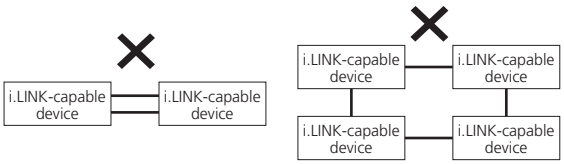



**Connection in tree structure**

If you are using a device having three or more i.LINK connectors, you may want to get the connection branched out. This way of connection allows you to connect up to 17 devices including this unit.




Your system does not work if data is fed back to the output device. Be careful not to create a loop.



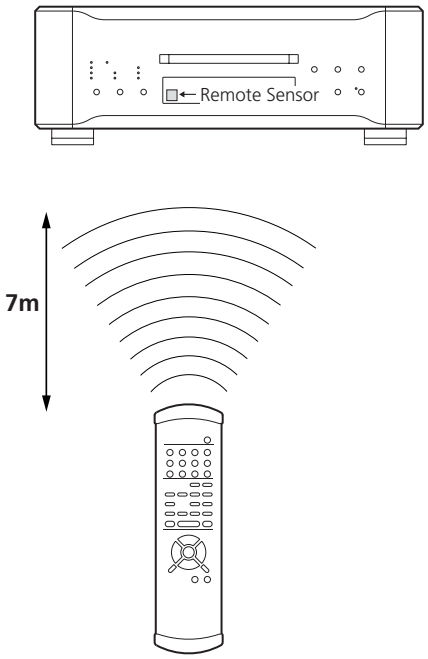

The i.LINK interface of this unit is designed in accordance with the following specifications:
1) IEEE Std 1394a-2000, Standard for a High Performance Serial Bus
2) Audio and Music Data Transmission Protocol 2.0

This unit is compliant with IEC 60958 bitstream, DVD-Audio, SACD in the AM824 sequence adaptation layers of this protocol.

The i.LINK logo is a trademark of Sony Corporation, registered in the U.S. and other countries.

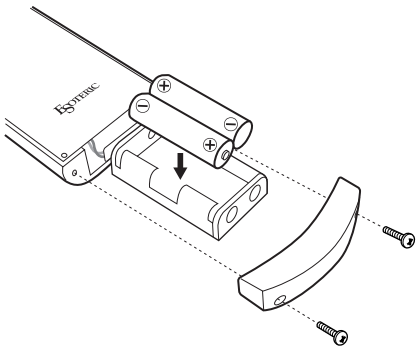
**Notes on use**

- Point the remote control unit at the player's remote sensor and use it within seven meters (20 feet) of the player. There should not be any obstacles between the player and the remote control unit.
- Do not allow direct sun or other light to shine on the remote sensor part of the player. This may cause the remote control unit to work incorrectly.
- Note that other units with remote controls may operate incorrectly because of infrared light "overspill" when you operate this remote control unit.




## How to insert the batteries

Remove the cover of the remote control unit with a screwdriver. After checking the polarity (⊕/⊖) of two AA batteries, insert the batteries, replace the cover and replace the screws.



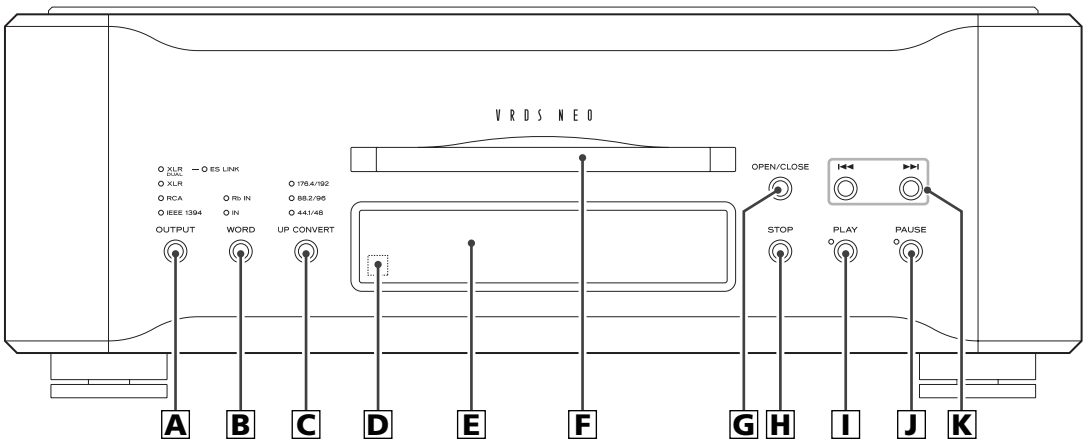
**Battery Replacement**

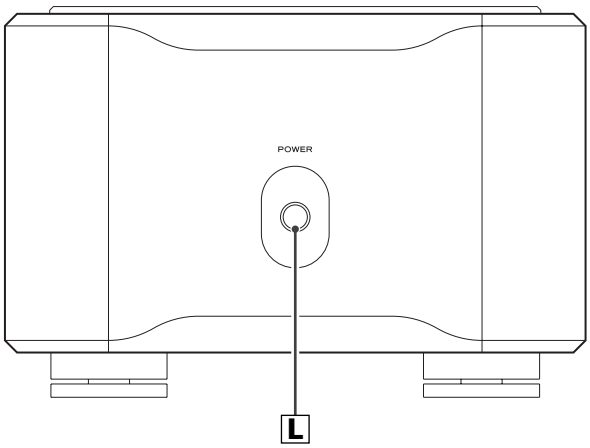
If the distance required between the remote control unit and main unit decreases, the batteries are weak. If this is the case, replace the batteries with fresh ones.

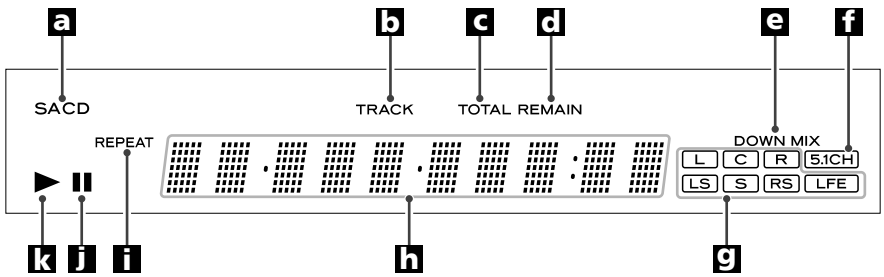
**Precautions concerning batteries**

- Be sure to insert the batteries with correct positive "⊕" and negative "⊖" polarities.
- Use batteries of the same type. Never use different types of batteries together.
- Rechargeable and non-rechargeable batteries can be used. Refer to the precautions on their labels.
- When the remote control unit is not to be used for a long time (more than a month), remove the batteries from the remote control unit to prevent them from leaking. If they leak, wipe away the liquid inside the battery compartment and replace the batteries with new ones.
- Do not heat or disassemble batteries and never dispose of old batteries by throwing them in a fire.

# Names of Each Control (Main Unit)



## Front Panel

**A OUTPUT**

Use this button to select the digital output terminals.
The indicator of the selected terminal lights.

**B WORD**

Use this button to turn on or off the word sync function.
When the word sync is on ("IN" or "Rb IN"), the unit will synchronize with an external word sync source.
The indicator of the selected mode will be lit.
No indicator is lit when the word sync function is off.

**C UP CONVERT**

Use this button to up convert the sampling frequency.
The indicator of the selected frequency lights.

**D Remote control sensor**

Receives signals from the remote control unit. Point the remote control unit at this sensor when operating the remote control unit.

**E Display**

**F Disc tray**

**G OPEN/CLOSE**

Use this button to open and close the disc tray.

**H STOP**

Use this button to stop playback.

**I PLAY**

Use this button to start playback. The PLAY indicator lights during playback.

**J PAUSE**

Use this button to pause playback. The PAUSE indicator lights during pause.

**K SKIP (I◄◄ / ►►I)**

Use these buttons for skip operations. Pressing and holding these buttons for more than a second changes the scanning speed.

**L POWER**

Use this button to turn the unit on or off. When the unit is on, the ring surrounding the button lights up.

> The equipment draws nominal non-operating power from the AC outlet with its POWER switch in the OFF position.

## Display

**a Disc type indicator (SACD or CD)**

Shows the type of disc currently loaded.

**b TRACK indicator**

Indicates that the track number of a CD or SACD is being shown.

**c TOTAL indicator**

Indicates that the total time is being shown.

**d REMAIN indicator**

Indicates that the remaining time is being shown.

**e DOWN MIX indicator**

Lights to show that a multi-channel source has been downmixed.

**f 5.1CH indicator**

Lights to show that "Multi ch" has been selected

**g Channel indicators**

Light to show which surround channels are currently in use.

**h Message area**

Alphanumeric display to show times, status messages, etc.

**i REPEAT indicator**

Lights when repeat play is selected

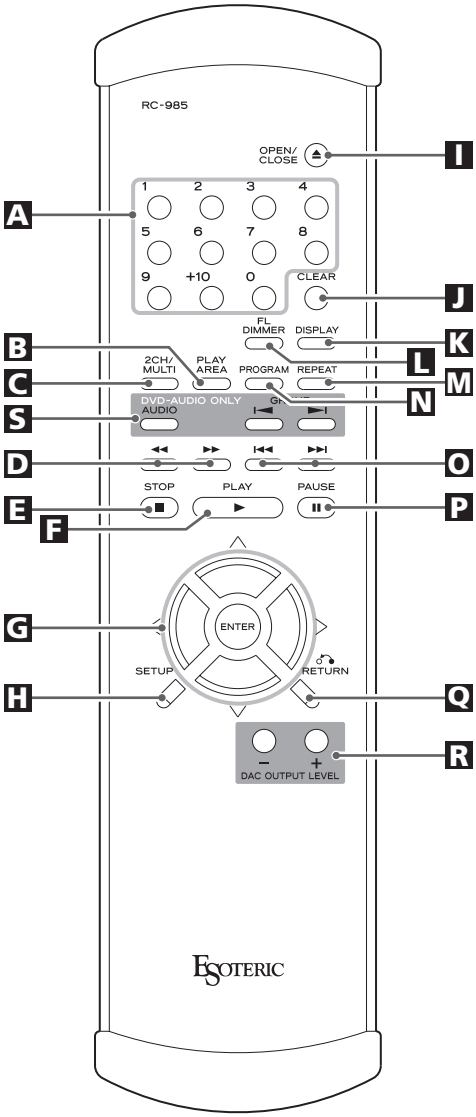
**j Pause indicator**

Lights when playback is paused.

**k Playback indicator**

Lights when playing back.

# Names of Each Control (Remote Control Unit)




**Note:**

To simplify explanations, instructions in this manual refer to the names of the buttons and controls on the front panel only. Associated controls on the remote control will also operate similarly.

**A Number buttons**

Use these buttons for selecting tracks by number, etc.

**B PLAY AREA**

Use this button to select the playback area of SACD discs.

**C 2CH/MULTI**

Use this button to switch between two-channel (stereo) and multi-channel surround audio output.

**D SCAN ( ◄◄ / ►► )**

Use these for fast scanning during playback.

**E STOP**

Use this button to stop playback.

**F PLAY**

Use this button to start playback.

**G Cursor buttons and ENTER**

Use these buttons to navigate in the setup mode.

**H SETUP**

Use this button to enter or exit the setup menu.

**I OPEN/CLOSE**

Use this button to open and close the disc tray.

**J CLEAR**

Use this button to clear entry errors, etc.

**K DISPLAY**

Use this button to change the display mode.

**L FL DIMMER**

Use this button to change the brightness of the front panel display and indicator lamps.

**M REPEAT**

Use this button to set the repeat playback mode.

**N PROGRAM**

Use this button when programming playback order.

**O SKIP (I◄◄ / ►►I)**

Use these buttons for skip operations.

**P PAUSE**

Use this button to pause playback.

**Q RETURN**

Use this button to go back a level in the setup menu.

**R DAC OUTPUT LEVEL**

If you have the Esoteric D-01, use these buttons to adjust the output level.

**S Buttons for the operation of DVD-Audio**

The following are the DVD-Audio-only buttons, and will be made available when the P-01 is updated in the future.

**AUDIO**

During playback of a DVD-Audio disc, press this button to select an audio.

**GROUP**

During playback of a DVD-Audio disc, press this button to skip groups.

## Type of discs that can be played on this system

This player can playback discs bearing any of the following logos:

**Audio CD:**
- 12cm or 8cm discs
- Linear PCM digital audio

Audio CDs are divided into tracks.

**SACD:**
- Single layer, dual layer or Hybrid layer
- 12cm or 8cm discs
- Digital audio (DSD)

SACDs are divided into tracks.

"Super Audio CD" is a registered trademark.

**About CD-R/CD-RW**

CD-R/RW discs recorded in Audio CD format and finalized correctly are playable. But depending on the quality of the disc and/or the condition of the recording, some CD-R & CD-RW discs may not be playable.

**Caution:**
- If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)
- Unfinalized CD-R/CD-RW discs cannot be played.

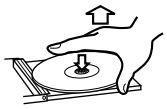
## Following discs cannot be played with this unit:

- DVD, CD-G, Data part of CD-EXTRA, PHOTO CD, CD-ROM and DVD-ROM discs
- illegally produced discs
- scratched discs
- discs that are dusty, soiled or marked with fingerprints

**Warning:**
If you attempt to play back such discs, there is a risk that sudden very loud noise will be sent to the speakers at full volume and may cause damage to the speakers and possibly your hearing.

Copy-protected discs and other discs which do not conform to the CD standard may not play back correctly in this player. If you use such discs in this unit, TEAC ESOTERIC COMPANY cannot be responsible for any consequences or guarantee the quality of reproduction. If you experience problems with such non-standard discs, you should contact the producers of the disc.

- Always place the disc on the disc tray with the label side up. (Compact discs can be played or recorded only on one side.)
- To remove a disc from its storage case, press down on the center of the case and lift the disc out, holding it carefully by the edges.

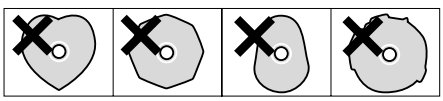


How to remove the disc

How to hold the disc

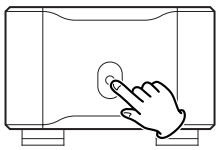
- Should the disc become dirty, wipe the surface radially (from the center hole outward towards the outer edge) with a soft, dry cloth:

Do not clean the disc using a circular motion around the disc.
- Never use such chemicals as record sprays, antistatic sprays or fluid, benzine or thinner to clean the discs. Such chemicals will do irreparable damage to the disc's plastic surface.
- Discs should be returned to their cases after use to avoid dust and scratches that could cause the laser pickup to "skip."
- Do not expose discs to direct sunlight or high humidity and temperature for extended periods. Long exposure to high temperatures will warp the disc.
- Do not play any disc that is warped, deformed or damaged. Playing such discs may cause irreparable harm to the playing mechanism.
- CD-R and CD-RW discs are more sensitive to the effects of heat and ultraviolet rays than ordinary CDs. It is important that they are not stored in a location where direct sunlight will fall on them, and which is away from sources of heat such as radiators or heat-generating electrical devices.
- Printable CD-R and CD-RW discs aren't recommended, as the label side might be sticky and damage the unit.
- Do not stick papers or protective sheets on the discs and do not use any protective coating spray.
- Use a soft oil-based felt-tipped pen to write the information on the label side. Never use a ball-point or hard-tipped pen, as this may cause damage to the recorded side.
- Never use a disc stabilizer. Using commercially available CD stabilizers with this unit will damage the mechanisms and may cause them to malfunction.
- Do not use irregular shape CDs (octagonal, heart shaped, business card size, etc.). CDs of this sort can damage the unit:



- If you are in any doubt as to the care and handling of a CD-R/CD-RW disc, read the precautions supplied with the disc, or contact the disc manufacturer directly.

## POWER switch

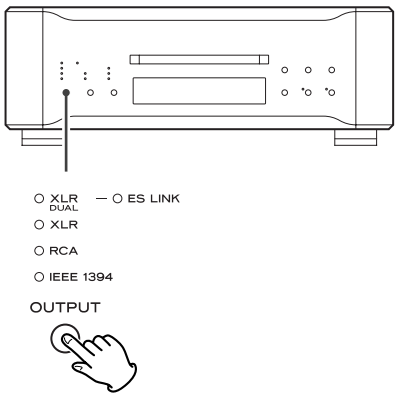


Press the POWER switch of the power supply unit to turn the P-01 on or off.
When the unit is on, the ring surrounding the switch lights up.

- Also turn the connected components (D/A converter, amplifier, clock generator, etc.) on.

- When the WORD button is set to "IN" or "Rb IN", "WRD UNLOCK!" or "No Word!" may appear, as it takes several seconds for the unit to lock the word clock input from the WORD SYNC IN terminal. The message will disappear when the unit locks to the word clock.

## Digital Output Setting

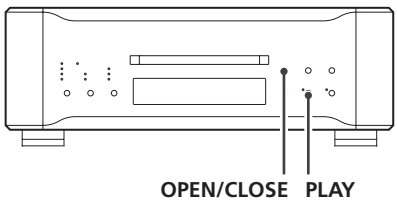



Repeatedly press the OUTPUT button to select the digital output terminal.
Select the terminal to which your D/A converter is connected.

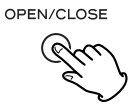
The indicator of the selected terminal lights up.

The ES-LINK indicator lights only when you select XLR DUAL with an SACD on the disc tray. It goes off when the unit is turned off or a CD is loaded.

- The ES-LINK is an Esoteric-exclusive format that makes SACD digital output possible. Data from SACD is automatically transmitted in the ES-LINK format when you switch the P-01 to the XLR DUAL output with the ES-LINK-ready D/A converter D-01 connected to the XLR connector on the P-01.

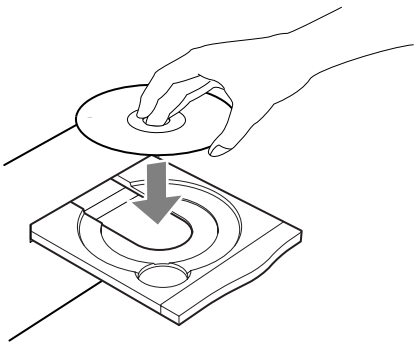



**1 Press the OPEN/CLOSE button.**



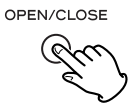

The tray opens after a few seconds (this delay is normal and due to the movement of internal mechanisms within the unit before opening).

**3 Insert the disc label side up.**



- Make sure the disc is located in the center of the recess in the tray in order to avoid any malfunction or jamming of the tray or the unit.

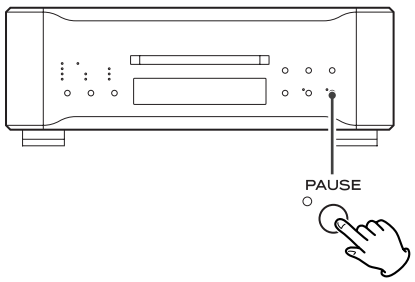
**4 Press the OPEN/CLOSE button again.**




The tray closes. Take care to not pinch your fingers or other objects in the moving tray.
The unit reads the disc (this may take a little time) and the display shows "LOADING".

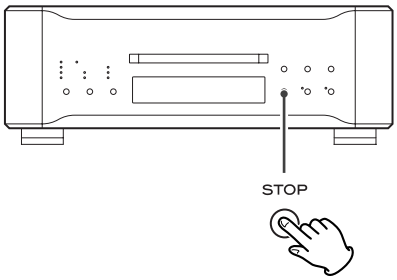
**5 Press the PLAY button to start playback.**

## Pausing playback



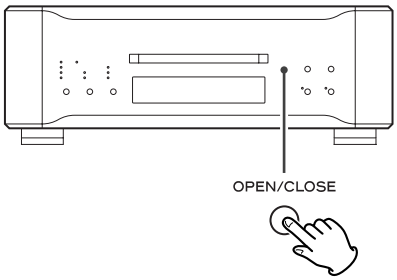

Press the PAUSE button to pause playback. ❚❚ indicator lights on the display.
Press PLAY or PAUSE to restart playback.

## Stopping playback



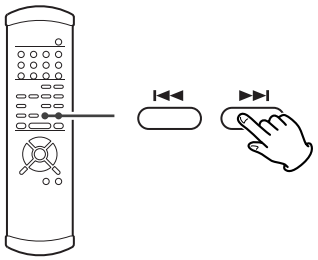

Press the STOP button.

## Opening and closing the tray




Pressing OPEN/CLOSE opens the tray if it is closed, and closes it if it is open.
When the tray is opened during playback, it may take a few seconds before the disc comes to a stop and is "unloaded". The tray will then open.

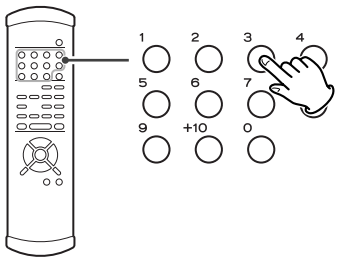
## Skipping playback



Press the SKIP button (I◄◄ or ►►I) repeatedly until the desired track is found. The selected track will be played from the beginning.

- If the I◄◄ button is pressed once during playback, playback returns to the start of the current track. If it is pressed within one second from the start of the track, playback returns to the start of the previous track (so pressing the button twice in quick succession will skip back two tracks, etc.).
- If tracks are skipped while playback is paused or stopped, playback is paused or stopped at the start of the selected track.
- In programmed playback mode, these buttons will move between tracks in the programmed order.

## Selecting a track

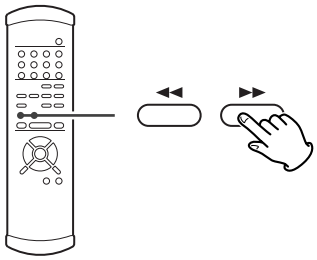



Use the number button to select tracks for playback. Use the +10 button to enter the first digit of numbers greater than 9 (repeated presses will show 1-, 2-, 3- etc.) and the single digit buttons (0 through 9) for the second digit, or single-digit track numbers.

Playback starts from the selected track, regardless of whether the number is selected during playback or playback is stopped or paused.

Use the CLEAR button to clear mistaken entries.

## Fast scanning



During playback, use the SCAN button (◄◄ or ►►) to rapidly move backwards and forwards. Press PLAY to restart playback at normal speed at the desired location.
Repeated presses of the SCAN buttons changes the scanning speeds. There are three speeds:

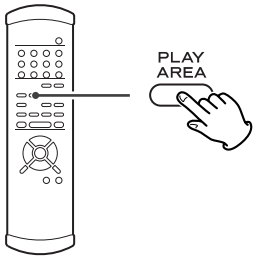
Fast (1) → Fast (2) → Fast (3) → Play (normal speed)

- You can also use the SKIP buttons on the front panel of the main unit. To start scanning (or to change the scanning speed), press and hold the SKIP button for more than one second.

**Notes**

Scanning can be carried out across track boundaries.
If backward scanning reaches the start of the disc, playback starts from the beginning. If forward scanning reaches the end of the disc, scanning and playback stop.

## Selecting the playback area

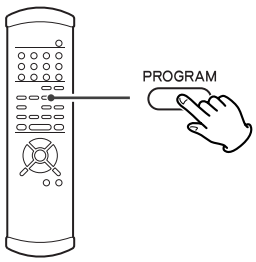



Some SACD discs contain two or more separate audio areas such as multi-channel area, 2 channel (stereo) area and CD area.
When playback is stopped, use the PLAY AREA button to select the playback area.

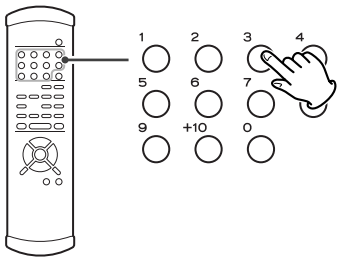
**Programmed playback allows up to 30 tracks to be played back in the order you decide.**

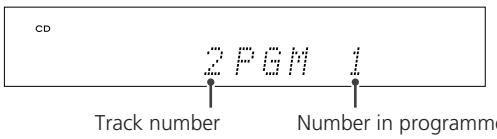
**1 Press the PROGRAM button (either during playback or when stopped).**

If a track is currently playing back (or paused in the middle of the track), this track is added as the first item in the programmed playback list.




**2 Use the number buttons to add tracks to the programmed playback list.**



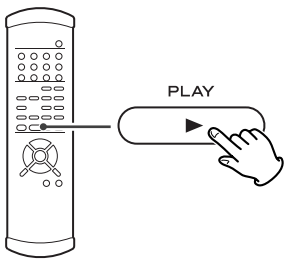




Use the +10 button and 0 through 9 buttons in exactly the same way as when selecting tracks.
Continue pressing the number buttons to add tracks.

- Clear mistakes with the CLEAR button (the last entry is cleared)
- You can only select tracks on the disc (in other words, if the disc has six tracks, you cannot program track 7).

**3 Finish the programming by pressing PLAY.**

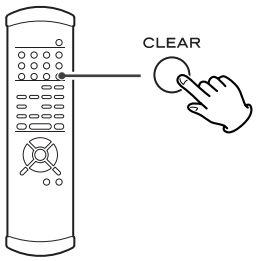
Programmed playback begins (if the disc is actually being played while you are setting the program order, there's no need to press PLAY).




Skip between tracks in the programmed playback order using the SKIP buttons (I◄◄ / ►►I).

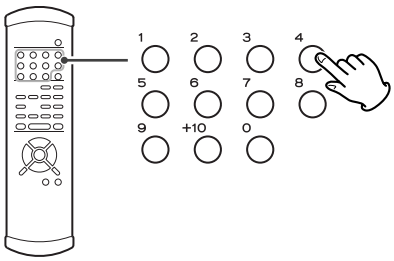
## Clearing the last track from the list

Push the CLEAR button to clear the last track from the list.



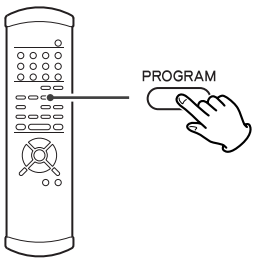

## Adding tracks to the list

Use the number buttons to add tracks to the list.

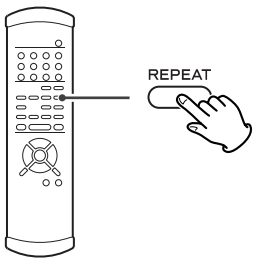



## Clearing the whole program

Press the PROGRAM button to clear the program (playback continues from the current point).
The OPEN/CLOSE or the POWER button also clears the program.



## Repeat mode




Use the REPEAT button to select the repeat mode for playback. Repeated presses of the REPEAT button cycle between the following options:

REPEAT TRK (repeat the track) → REPEAT DSC (repeat the whole disc) → REPEAT OFF (no repeat) →

- Halting playback stops the repeat mode.
- This feature is not available for all discs.
- The following buttons cancel repeat mode:
  STOP, OPEN/CLOSE, POWER.

### Track repeat

When this is selected, the currently-selected track repeats. If another track is selected during repeat playback, the newly selected track repeats.

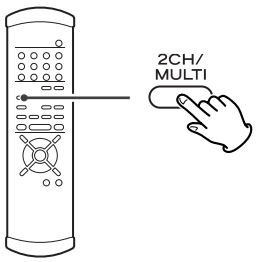
### Disc repeat

The whole contents of the disc are repeated.

### Programmed repeat

If programmed playback has been set up, the whole program is repeated.
Pushing the REPEAT button cycles between REPEAT PGM (program repeat) and REPEAT OFF (programmed playback takes place).

## 2 channel/Multi channel




When playback is stopped, use the 2CH/MULTI button to select either 2CH (stereo) or MULTI (multi-channel surround) audio output.

**2ch**

2-channel audio is output. When multi-channel data on SACD is played back, the data from the center, sub-woofer, right surround and left surround channels is mixed down to stereo (front left and right channels). (The DOWN MIX indicator lights on the display.)

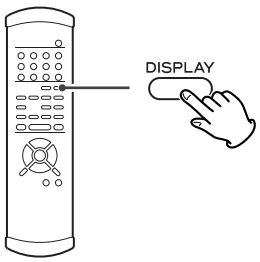
Select this mode to listen music in stereo using two D-01 units.

**Multi ch**

Discrete 5.1-channel audio is output. Select this output mode if you are using six D-01 units or the P-01 is connected to a multi-channel D/A converter with IEEE 1394 cable.

- The 5.1CH indicator lights when the P-01 is switched to Multi ch.

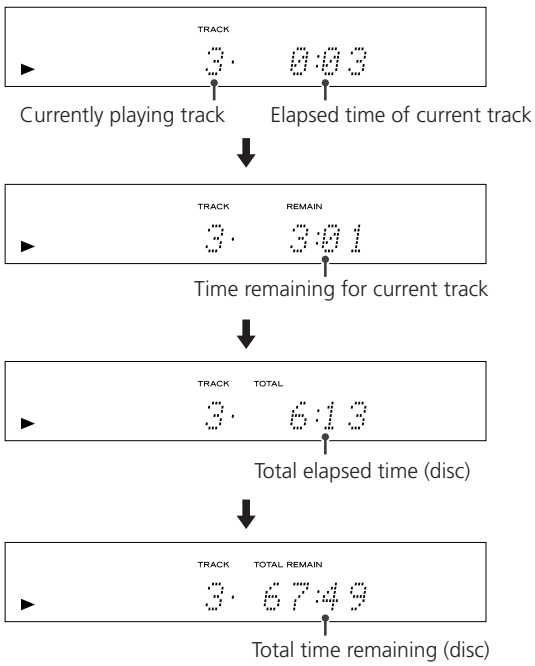
## Changing the display mode



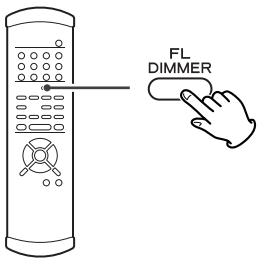

During playback, it is possible to change the display as shown here.

- When playback is stopped, the display shows "total number of the tracks on the disc" and "the total playback time of the disc".

- The DISPLAY button doesn't work during programmed playback.




## Display dimming

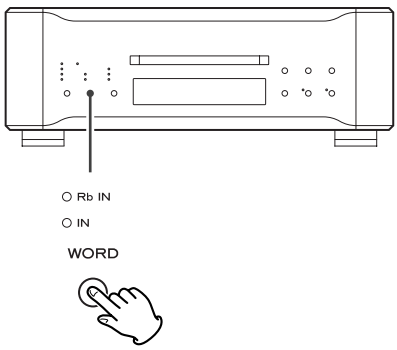



The display on the main unit can be dimmed to suit the environment in which you listen to music. There are three levels and an "off" setting.
**Use the FL DIMMER button to cycle between these settings.**

- Note that the OFF setting is not memorized when the power is turned off. When the unit is switched off with the display off, and then turned on again, the display is reset to the minimum brightness.

- In OFF mode, when you press a button such as PLAY, the illuminations turn on temporarily.

## Word Sync




This feature is used when you want to get your whole system locked to a single sync signal (clock) by connecting this unit to the Esoteric D-01 or G-0/G-0s or other devices that are capable of outputting a sync signal (word clock) or when you want to use a precision external clock rather than the clock inside the P-01.

**Each press of the WORD button rotates the selection through the following:**

**IN**

This mode provides a stable sync operation with general external clocks. But there are occasions when no sync can be achieved depending on the output accuracy of the clocking devices used.

This is because the word clock input frequency range of this unit is set to as narrow as ±15ppm, a stability requirement in order to achieve a sync with a high-degree of accuracy.

**Rb IN**

This is a mode designed for external clocks of higher degree of precision like a rubidium clock generator.

Keep in mind that it will take time before synchronization is achieved in this mode.

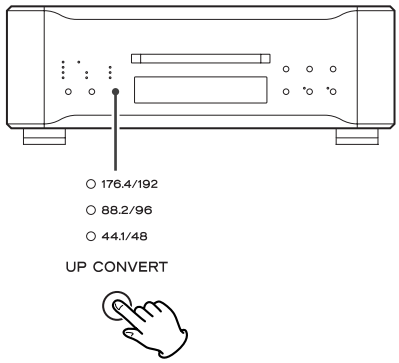
Switch the mode to IN if "WRD UNLOCK!" appears. This means the stability of the connected clock is not accurate enough for this sync mode.

**Off**

No word sync is available.

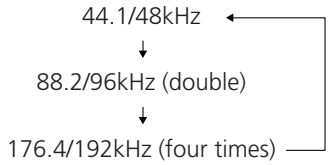
- Select Rb IN when connected to the G-0s, and select IN when connected to the G-0/D-01/D-70.
- This unit is ready for the following clocks and switches itself depending on an incoming signal:
  44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4 kHz, 192 kHz
  This unit also accepts a Universal Clock frequency of 100 kHz.
- When selecting IN or Rb IN, the corresponding indicator starts blinking to indicate that the unit is searching for an external clock. The indicator turns on solid (blue) when this unit detects and locks to an external clock and is ready for play.
- Make WORD SYNC connections before powering on the unit.
- There are occasions where the D/A converter produces noise when switching on/off the word sync. If this is the case reduce the amplifier's volume before going on.

## Up Convert



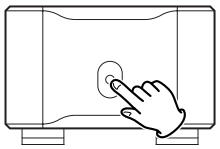

You can convert the basic 44.1/48kHz sampling frequency to double (88.2/96kHz) or four times (176.4/192kHz).

**Each press of the UN CONVERT button rotates the selection through the following:**

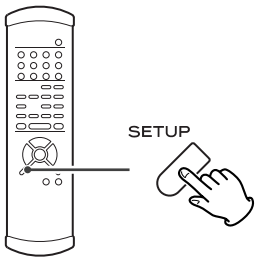



- Select 44.1/48 kHz for no upward conversion.
- The DSD signal (1 bit, 64 fs) from SACD is output as it is without being up-converted.
- 88.2-kHz signals are sent out of each XLR terminal when you select 176.4/192 kHz (4 times up sampling mode) with the output set to XLR DUAL.
- There is no audio output when you select 44.1/48 kHz with the output set to XLR DUAL. The corresponding indicator blinks in this case. In this case, select 88.2/96 kHz or 176.4/192 kHz.
- No up-converted signal is available at the DIGITAL OUT (NORMAL) terminal.

**1 Turn on the main unit.**



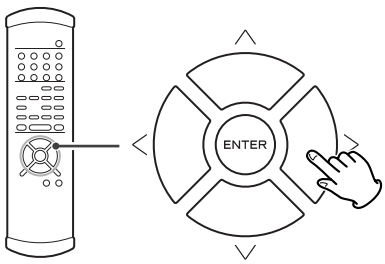
**2 Press the SETUP button to enter the setup menu.**




"AudioSetup" appears on the front panel display.

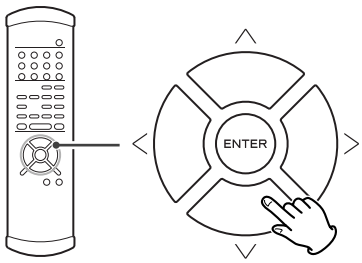
- In this manual, factory settings are marked with an asterisk "*".
- Although it is possible to enter the setup menu while playback is continuing, not all menu functions will be available. Increase the number of available functions by pressing the STOP button.
- Exit the setup menu by pressing SETUP once again.

**3 Use the cursor buttons to navigate the menus.**



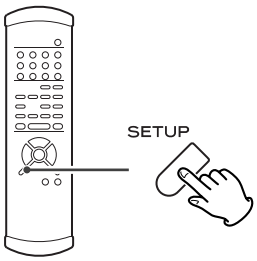

- Refer to the Setup Menu Chart on the next page.
- The options you can change are marked with ">".
- Use the left and up cursor buttons (or the RETURN button) to go back a level in the setup menu.

**4 When a option marked with ">" is displayed, use the up or down cursor buttons to change the setting, and press the ENTER button to confirm the entry.**



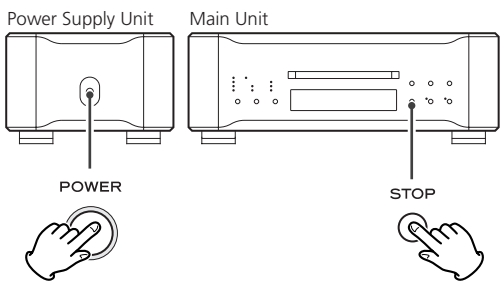

- When a numerical value (such as speaker distance) is changed, the value is confirmed without pressing the ENTER button.
- Individual menu functions are described on pages 28 and 29.
- Repeat steps **3** and **4** as required.

**5 Exit the setup menu by pressing SETUP once more.**



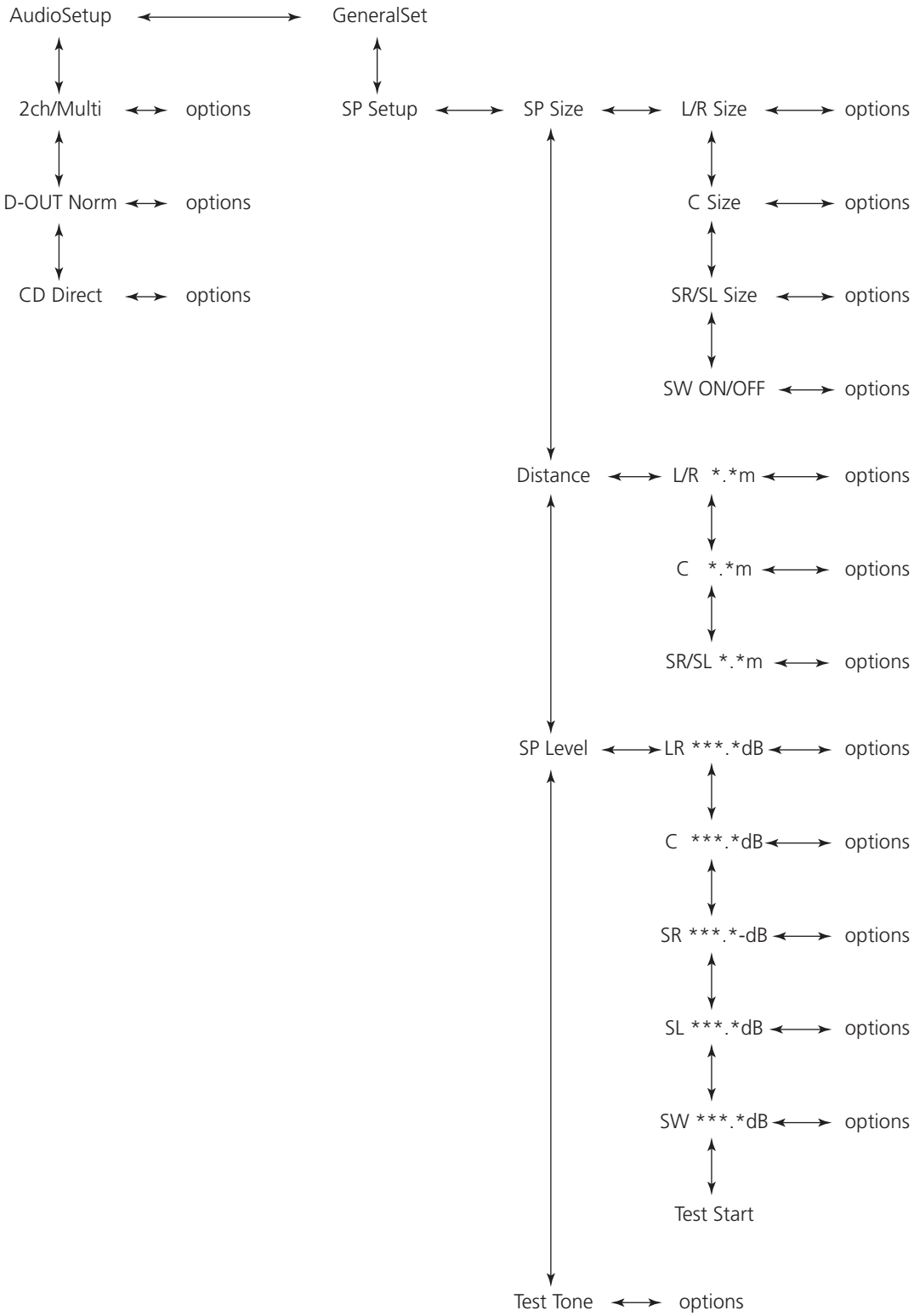

## Restoring factory default settings

If you have made a lot of changes to the setup, and want to restart from a known set of options, restore the unit to the factory default settings as follows:




1. If the unit is on, press the POWER switch to turn it off.
2. While holding down the STOP button, press the POWER switch.

All memories are erased, and the unit returns to the factory default settings.


AudioSetup
GeneralSet
2ch/Multi
options
SP Setup
SP Size
L/R Size
options
D-OUT Norm
options
C Size
options
CD Direct
options
SR/SL Size
options
SW ON/OFF
options
Distance
L/R *.*m
options
C *.*m
options
SR/SL *.*m
options
SP Level
LR ***.*dB
options
C ***.*dB
options
SR ***.*-dB
options
SL ***.*dB
options
SW ***.*dB
options
Test Start
Test Tone
options

## 2ch/Multi setting

When a option marked with ">" is displayed, use the up or down cursor buttons to change the setting, and press the ENTER button to confirm the entry.

**2ch***

2-channel audio is output. Multi-channel data is mixed down to stereo.

Select this mode to listen music in stereo when using only two D-01 units or if the P-01 is connected to a two-channel system.

**Multi ch**

Discrete 5.1-channel audio is output. Select this output mode if you are using six D-01 units or the P-01 is connected to a multi-channel D/A converter with IEEE 1394 cable.

## Setting for the DIGITAL OUTPUT (NORMAL) terminal (D-OUT Norm)

When a option marked with ">" is displayed, use the up or down cursor buttons to change the setting, and press the ENTER button to confirm the entry.

**ON**

Audio is output from the DIGITAL OUTPUT (NORMAL) terminal. Select this when a digital device is connected to this terminal.

**OFF ***

Audio is not output from the DIGITAL OUTPUT (NORMAL) terminal. If you are not using this terminal, we recommend you turn this OFF for better sound.

- The DIGITAL OUTPUT (NORMAL) terminal cannot output an up converted signal nor the SACD digital data stream.

## CD Direct

When a option marked with ">" is displayed, use the up or down cursor buttons to change the setting, and press the ENTER button to confirm the entry.

**Direct ***

Speaker setting is bypassed. Select this setting for stereo sound.

**Normal**

Select this to enjoy multi-channel sound using the speaker setting you have selected.



## Speaker Size (SP Size)

Select the size (Large* or Small) independently for the L/R (front pair of speakers), the C (center speaker) and the SR/SL (surround pair of speakers). Turn the subwoofer (SW) ON* or OFF (if you have no subwoofer).

**Large ***

Select this when the connected speakers can fully reproduce low frequency sounds.

**Small**

Select this when the connected speakers are relatively small and cannot fully reproduce low frequency sounds.

When this setting is selected, bass frequencies are output from the subwoofer (if no subwoofer is connected, from the front speakers).

**OFF**

Select this when no speaker is connected. The sound is output from the front (or surround) speakers.

- When the front speaker is set to "Small", the subwoofer is set to "ON" automatically. You cannot set the subwoofer "OFF".

**ON (subwoofer only)**

Select this when a subwoofer is connected.

- For the center and surround pair options, if these speakers are not physically present, you can select OFF to prevent any output from those channels (you cannot turn off the front L/R pair). Any speakers turned off will downmix (if this option is selected) to the other enabled channels.

## Speaker levels (SP Level)

Use this to set the relative levels of the speakers. You can set the L/R pair together, and the center, and surround rear pair independently, as well as the subwoofer. The maximum value you can set here is +6dB and the minimum is –12dB, with settings made in 0.5dB increments. The default setting is 0dB.

**The Distance, Test Start and Test Tone settings will be required when the P-01 is updated to allow playback of the DVD Audio format in the future.**

**These settings have no effect on CD and SACD playback and are not necessary unless your P-01 is updated.**

## Speaker distance

Ideally, the speakers should be placed so that they are all the same distance from the listening position. If this is not possible, you should use the method described here to adjust them individually. It is also possible to adjust all distances together. The point of these settings is to provide the best synchronization between sound and image by delaying the sound by an amount proportional to the distance of each speaker. The subwoofer is not included in this setting (the placement of the subwoofer is less critical than that of other speakers).
The L/R setting changes the distance of all speakers together. Pressing the up button adds 0.1m to each value, and pressing the down button subtracts 0.1m from each value.
Distances are measured in meters (1 meter = just over 3 feet, and 0.1 meter = about 4 inches). The default setting is 3m or about 10 feet.

Carry out this operation first before setting the other speaker distances.

After setting the L/R, C and SR/SL speaker distances together, you can now set the center and surround pair distances. The minimum distance for these is 0m and the maximum is 9m, with the additional restrictions described here.

- The distance that you set for the center speaker cannot be greater than the distance set for the L/R pair and must be within 1.7m of that L/R distance.
  So for example, if the distance to the L/R pair is set to 5.0m, the center distance must be between 3.3m (5 – 1.7) and 5m.

- The distance that you set for the SR/SL surround pair cannot be greater than the distance set for the L/R pair (and must be within 9m of that distance).
  So with the L/R pair set at 5m, the SR/SL pair distance can be set from 0m to 5m.

## Start the Test Tone (Test Start)

Test tone function is useful for setting the relative levels of the speakers.

1. **Select "Test Start" and press the ENTER button.**
   The unit outputs test tone from each channel in turn at the specified level for each channel.

- Adjust the master volume of your amplifier to the normal listening level.

2. **Select a speaker using the up or down cursor buttons.**

3. **Press the right cursor button.**

4. **Adjust the levels using the up or down cursor buttons.**

5. **When the setting has been finished, press the SETUP button to exit the setup menu.**

## Test tone length (Test tone)

Select the Test Tone menu item, and choose between 2, 5* or 10 seconds. This represents the length of time that the test tone is output from each speaker when Test Start is selected.

# Troubleshooting

In case you experience any problem with this unit, please take the time to look through this chart and see if you can solve the problem yourself before you call your dealer.

**No power**

- ➜ Check the connection to the AC power supply. Check and make sure the AC source is not a switched outlet and that, if it is, the switch is turned on. Make sure there is power to the AC outlet by plugging another item such as a lamp or fan.
- ➜ Press the POWER switch of the power supply unit to turn it on.
- ➜ Check the connection between the power supply unit and the main unit.

**Remote control doesn't work.**

- ➜ Press the POWER switch of the power supply unit to turn it on.
- ➜ If the batteries are dead, change the batteries.
- ➜ Use the remote control unit within the usable range (7m / 23ft) and make sure it is pointed at the front panel.
- ➜ Clear obstacles between the remote control unit and the main unit.
- ➜ If a strong light is near the unit, turn it off.

**Severe hum or noise is heard.**

- ➜ Place the unit as far away from a TV as possible.
- ➜ Make sure the line cords and speaker cables are as far away from the AC supply as possible. Whenever possible use a common AC power source for all components

**Cannot play.**

- ➜ Reload the disc with the label side UP.
- ➜ This unit cannot play discs such as CD-ROMs. Use only playable discs (see page 17).
- ➜ If the disc is dirty, clean the surface of the disc.
- ➜ Make sure a blank disc has not been loaded. Load a prerecorded disc.
- ➜ If the unit is cold and condensation may have occurred, leave the unit for one or two hours with the power turned on (see page 5).
- ➜ If another operation is still in process, wait a moment and try again.

**Sound skips.**

- ➜ Place the unit on a stable place to avoid vibration and shock.
- ➜ If the disc is dirty, clean the surface of the disc.
- ➜ Don't use scratched, damaged or warped discs.

**No sound from speakers.**

- ➜ Check the connection to the D/A converter, amplifier and speakers.
- ➜ Check the operation of the D/A converter and the amplifier.
- ➜ When the D/A converter is connected via the DIGITAL OUT (NORMAL) terminal, set the D-OUT Norm setting to "ON" (see page 28).

**No multi-channel audio output**

- ➜ The ES-LINK compatible D/A converter D-01, or an IEEE1394 (i.LINK S400 (AUDIO)) compatible D/A converter is necessary in order to output digital surround sound from SACD discs.
- ➜ Set the 2ch/Multi setting to "Multi-Channel", or use the 2CH/MULTI button of the remote control unit to change the settings (see page 23, 28).

**The WORD indicator blinks.**

- ➜ The word sync mode is selected, but there is no clock source. Turn the word sync mode off (see page 25).
- ➜ No word clock is being received. Check cables, connections, and settings of the clock generator.

**The display shows "No Word!"**

- ➜ The word sync mode is selected, but there is no clock source. Turn the word sync mode off (see page 25).
- ➜ No word clock is being received. Check cables, connections, and settings of the clock generator.

**The display shows "Word Error"**

- ➜ Invalid word sync signal is received. Check the setting of the clock generator.

**The display shows "WRD UNLOCK!"**

- ➜ Cannot lock the word sync signal. If "Rb IN" is selected, select "IN".

**The display shows "TRAY ERR!"**

- ➜ Clear obstacles in front of the disc tray, and press the OPEN/CLOSE button.

**If normal operation cannot be recovered, unplug the power cord from the outlet and plug it in again. This resets the internal micro-computer which can be disturbed during electrical storms, power interruptions, et cetera.**

# Specifications

**General**

System . . . . . SACD, CD, CD-R and CD-RW
Power supply
U.S.A./Canada model. . . . . AC 120 V, 60 Hz
Korea model . . . . . AC 220 V, 60 Hz
Europe model . . . . . AC 230 V, 50 Hz

Power consumption . . . . . 29 W

Weight
Main Unit . . . . . 28 kg (61-11/16 lbs)
Power Supply Unit . . . . . 16 kg (35-1/4 lbs)

External dimensions (W x H x D)
Main Unit . . . . . 445 x 158 x 420 mm
(17-1/2″ x 6-1/4″ x 16-9/16″)
Power Supply Unit . . . . . 240 x 158 x 420 mm
(9-7/16″ x 6-1/4″ x 16-9/16″)

Operating temperature. . . . . +5˚C - +35˚C
Operating humidity . . . . . 5% to 85% (no condensation)
Storage temperature. . . . . –20˚C - +55˚C

**Digital Audio Output**

IEEE1394 input/output x 2

XLR output x 1
Use 6 terminals (L, R, C, SW, LS, RS) for ES-LINK output
Use 2 terminals (L, R) for Dual AES output
Use 1 terminal (L/R) for XLR output

RCA coaxial output x 1 (L/R terminal)

RCA coaxial (NORMAL) output x 1

No digital signal is available at the RCA C/SW and LS/RS output terminals. If no ES-LINK-capable device is connected, no digital audio is available at the XLR C/SW and LS/RS output terminals, either.

When updated in the future to be capable of playing back DVD-Audio, this unit can output multi-channel digital data from DVD-Audio.

**Word Clock**

Jack . . . . . BNC x 1
Input level . . . . . 4.5 Vp-p/75Ω

The main unit can accept and synchronize to the following frequencies received from external devices (rectangular wave):
44.1kHz, 48kHz, 88.2kHz, 96kHz,
100kHz, 176.4kHz, 192kHz,

Input frequency range
IN mode . . . . . ±15ppm
Rb IN mode is designed for external clocks like a rubidium clock generator.

**Accessories**

Power cord x 1
DC power cable x 2
Remote Control Unit (RC-985) x 1
Batteries (AA, R6 or SUM-3) x 2
Screwdriver x 1
Felt pad x 8
Warranty card x 1
Owner's manual x 1

- Design and specifications are subject to change without notice.
- Weight and dimensions are approximate.
- Illustrations may differ slightly from production models.

# Block Diagram